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DECEMBER

1949

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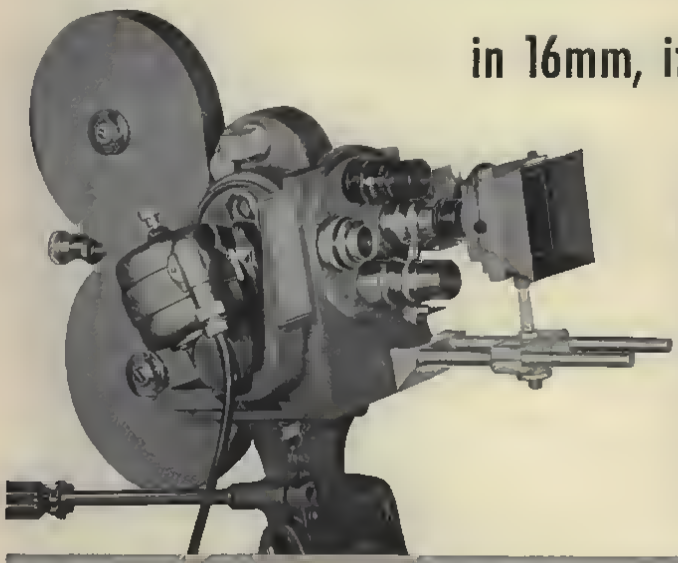

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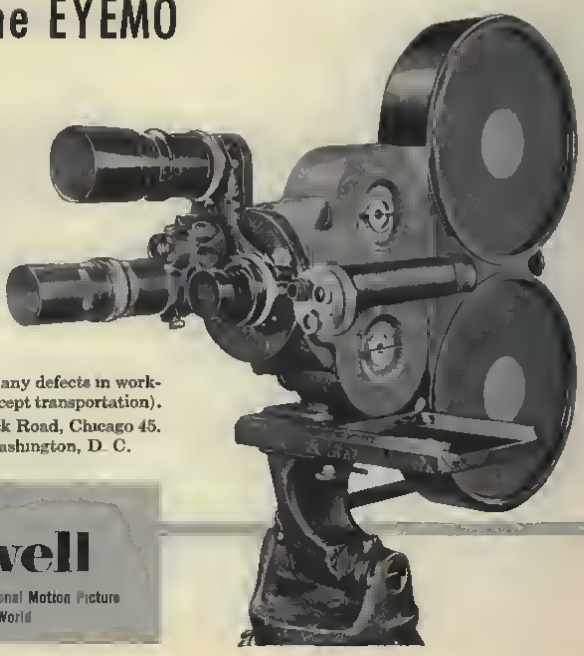

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ON THE COVER

For realistic shots of explosion scenes in 'Battleground," MGM technicians devised a concussion mounting for the camera Inside a light steel framework, the Mitchell camera is suspended from light coil springs and braced vertically and horizontally In filming explosions from artillery bombardment, director of photography Paul C Vogel (left) struck the framework a sharp blow, causing camera to jarr momentarily, then "jitter" back to normal—creating concussion effect of a heavy explosion Behind camera is operator James Harper, director William A Wellman, and in rear, author-associate producer Robert Pirosh.—*Photo by Ed Hubbell*

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★

AMERICAN SOCIETY OF CINEMATOGRAPHERS

FOUNDED January 8, 1919, The American Society of Cinematographers is composed of the leading directors of photography in the Hollywood motion picture studios Its membership also includes non-resident cinematographers and cinematographers in foreign lands Membership is by invitation only

The Society meets regularly once a month at its clubhouse at 1782 North Orange Drive, in the heart of Hollywood On November 1, 1920, the Society established its monthly publication "American Cinematographer" which it continues to sponsor and which is now circulated in 62 countries throughout the world

Dominant aims of the Society are to bring into close confederation and cooperation all leaders in the cinematographic art and science and to strive for pre-eminence in artistic perfection and scientific knowledge of the art

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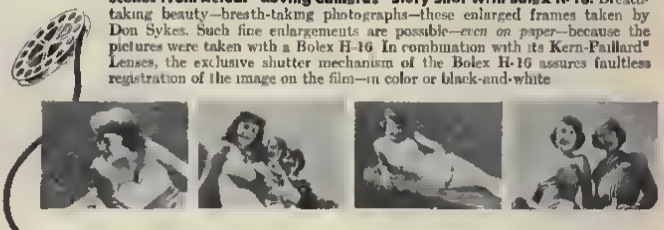

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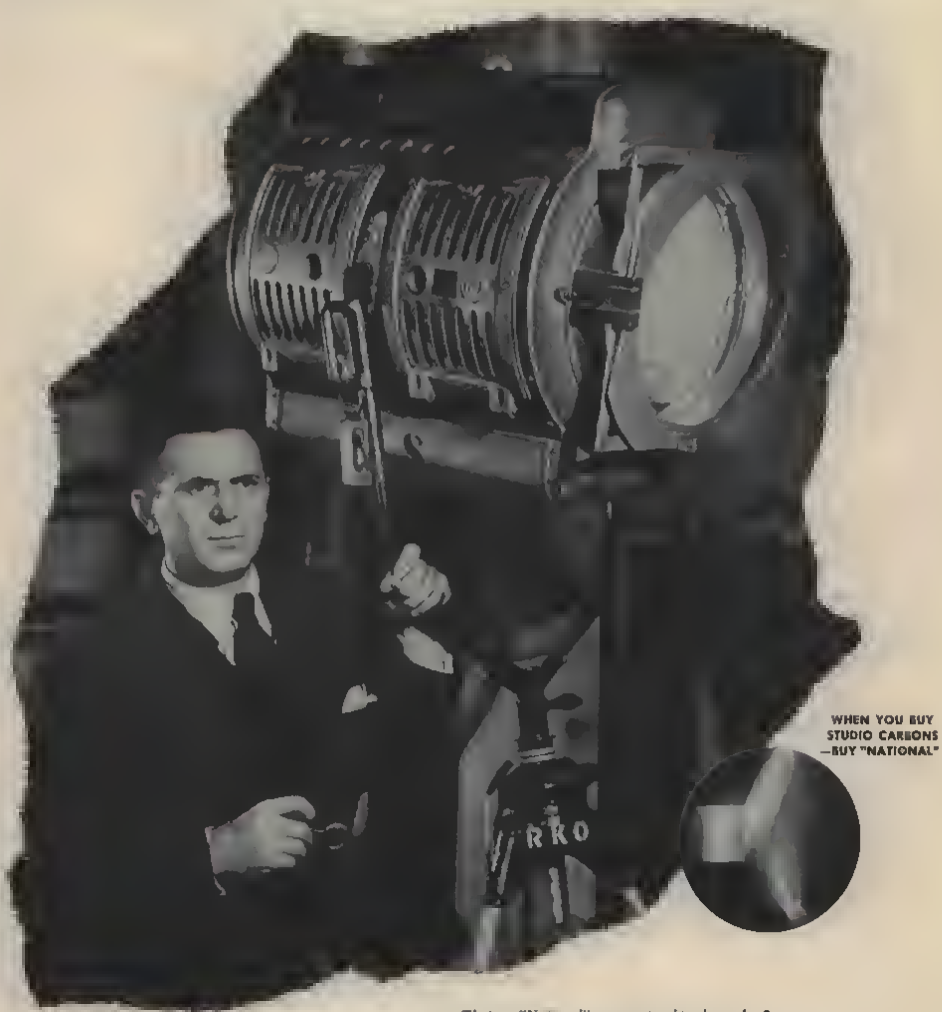

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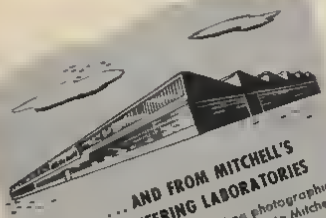

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HOLLYWOOD BULLETIN BOARD

KARL FREUND, A.S.C., after a nine-month sabbatical from Warner Brothers, during which time he moved his Photo Research Corporation to new and larger quarters in Burbank, has returned to that studio to direct the photography of "Bright Leaf," directed by Michael Curtiz.

•

CHARLES ROSHER, A.S.C., has developed a new, improved type diffuser at MGM for fill lights, to replace silks which soon discolor and are rendered useless for Technicolor photography. New diffuser consists of one or two sheets of spun glass mounted in a frame which is hung before the light source. Holder for diffuser is extended six inches ahead of lamp housing, allowing greater ventilation than when other types of diffusers are used. Extending position of diffuser also improves quality of the diffusion, according to Rosher, who is using new gadgets in the photography of "Annie Get Your Gun" starring Betty Hutton.

•

PHIL TANNURA, A.S.C., recently signed by Columbia Pictures to photograph "Custom Agent," will shoot much of the picture in actual locales, mostly downtown Los Angeles office buildings. Using the new "50 foot candles" photography recently inaugurated at Columbia (see article on Latensification elsewhere this issue) Tannura will light these interiors with photofloods and place No. 50 N.D. filter gels over windows to balance the daylight with interior lighting.

•

SOL HALPRIN, A.S.C., head of 20th Century-Fox camera and laboratory departments, and Mrs. Halprin embarked last month for a 30 day cruise of the Caribbean, combining annual vacation and celebration of their 25th wedding anniversary.

•

HERB A LIGHTMAN, whose name by-lines those interesting articles in American Cinematographer each month, and who for years has been a producer and director of photography of commercial films for Bud Woods Productions, Tulsa, Oklahoma, has been made Production Director of television shows for Tulsa's new million dollar TV station, KOTV.

•

ANNUAL PARADE of Pasadena Tournament Of Roses will be filmed in Technicolor in its entirety January 1st by Universal-International, who will have three color cameras focused on the event. One camera will be suspended from a boom over Colorado boulevard, with the other two spotted along the parade route to

(Continued on Page 457)

FROM

Tropic heat

TO

65° below

For three years the new Maurer 16-mm Professional Motion Picture Camera has been thoroughly work-proven under all kinds of conditions.

Operated under maximum temperatures and high humidity on tropical expeditions, it has given the same uniformity of performance as in studio shooting.

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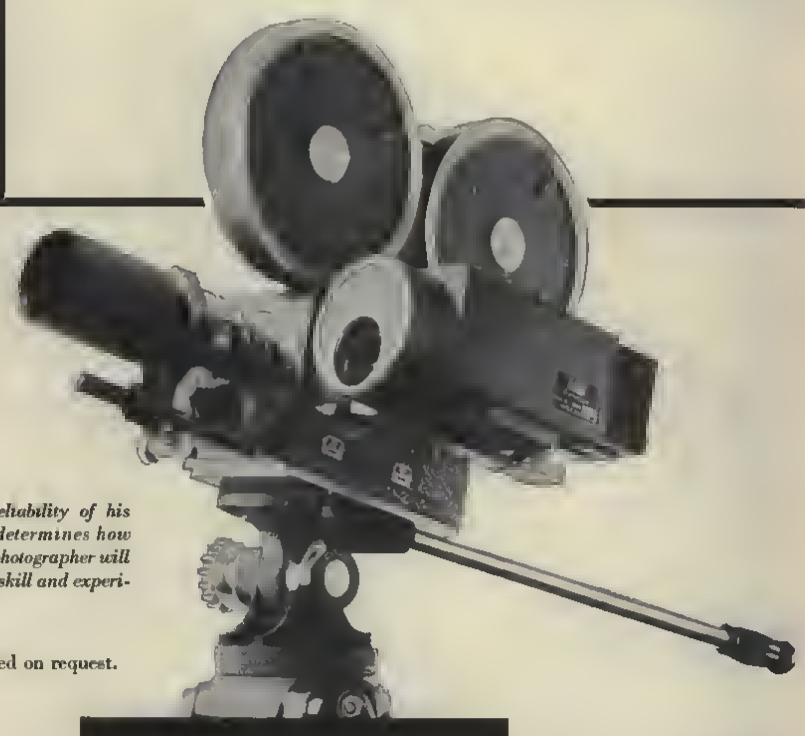

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CURRENT ASSIGNMENTS OF A.S.C. MEMBERS

Major film productions on which members of the American Society of Cinematographers were engaged as directors of photography during the past month

★★★★★★★★★★★★★★★★★

Columbia

• JOSEPH WALKER, "No Sad Songs," (Robert Rossen Prod.) with Margaret Sullavan, Wendell Cory, Viveca Lindfors and Natalie Wood Rudy Mate, director

• CHARLES LAWTON, "Kill The Umpire," with William Bendix and Gloria Henry Lloyd Bacon, director

• BURNETT GUFFEY, "In A Lonely Place," later retitled "Behind This Mask," (Santana Prodn.) with Humphrey Bogart, Gloria Graham, Frank Lovejoy, Jeff Donnell Nicholas Ray, director

• GEORGE DISKANT, "Fortunes Of Capt Blood," with Louis Hayward, Patricia Medina, Dona Drake and Lowell Gilmore Gordon Douglas, director

• JOSEPH BIROC, "The Killer That Stalked New York,' with Evelyn Keyes, Wm Bishop and Lola Albright. Earl McEvoy, director.

Eagle-Lion

• JACK MACKENZIE, "Blaze Of Glory," with Ron McAllister Jack Rawlins, director

• LIONEL LINDON, 'Destination Moon," (George Pal Prodn.) with Warner Anderson, John Archer, Erin O'Brien-Moore and Tom Powers Irving Pichel, director

Independent

• HAL MOHR, "Here Lies Love," (Briskin Smith Prod.) with Robert Young, Betsy Drake, John Sutton and Jean Rogers James V. Kern, director

• KARL STRUSS, "It's A Small World," (Motion Pictures, Inc.) with Paul Dale, Lorraine Miller and Nina Koshetz William Castle, director.

• JAMES WONG HOWE, "The Baron Of Arizona," (Lippert Prod.) with Vincent Price, Ellen Drew, Beulah Bondi and Vladmir Sokoloff Sam Fuller, director

• HENRY FREULICH, "The Vicious Years,' (Emerald-Film Classics) with Tommy Cook, Sybil Merritt, Edward Franz and Anthony Ross. Robert Florey, director

M-G-M

• PAUL C VOGEL, "You're Only Young Twice" (In Color), with Dean Stockwell, Scotty Beckett, Darryl Hickman and Leon Ames. William A Wellman, director

• JOSEPH RUTTENBERG, 'The Miniver Sequel (In Color—shooting in England), with Greer Garson, Walter Pidgeon, John Hodiak and Cathy O'Donnell Henry Potter, director

• RAY JUNE, "The Reformer And The Redhead," with June Allyson, Dick Powell, David Wayne and Cecil Kellaway Norman Panama and Melvin Frank, directors

• ROBERT SURTEES, "King Solomon's Mines," (Technicolor) (Shooting in Belgian Congo) with Deborah Kerr, Stuart Granger and Richard Carlson Compton Bennet director

• CHARLES SCHOENBAUM, "Duchess Of Idaho," (Technicolor) with Esther Williams, Van Johnson, John Lund and Paula Raymond. Robert Leonard, director

• CHARLES ROSHER, "Annie Get Your Gun," (Technicolor) with Betty Hutton, Howard

(Continued on Page 461)

"PROFESSIONAL JUNIOR" Camera Equipment...

... the most versatile and dependable camera accessories available for those who prefer the finest.

Interchangeable - Removable Head Tripods

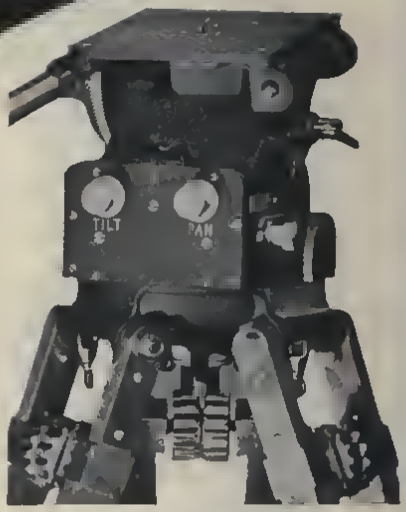
Friction Type Head on Standard Tripod Base and Collapsible Adjustable Metal Triangle

FRICTION TYPE

Handles 16mm EK Cine Special with or without motor, 35mm DeVry, B&H and 400' Eyemo with meter and 400' magazines and all 16mm hand-held cameras. Head is interchangeable with the Gear Drive head. Both types fit "Professional Junior" standard tripod base, "Hi-Hat" and "Baby" all-metal tripod base

GEAR DRIVE

The head made of Dow Metal magnesium, weighs but 5½ lbs and is interchangeable with the Friction type head. It handles all types of cameras. Snap-on metal cranks control pan and tilt action from both sides. Worm - driven gears are Gev't spec bronze



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This light weight GYRO Tripod performs with all the efficiency of larger, heavier and costlier tripods now in use.

New, small size GYRO tripod handles all 16mm. professional type cameras: Mitchell 16mm.; Auricon single system; Maurer 16mm.; moter-driven Cine Special; also 35mm, motor-driven Eyemo with 400' magazine. It features Super Smooth Pan & Tilt Action.

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SUNSHADE & FILTER HOLDER COMBINATION

For use with Bolex and Cine Special 16mm cameras. Holds two 2" sq glass filters and 2½" round Pola Screen with handle which can be rotated for polarization. Covers all lenses from 15mm to 6" telephoto and eliminates need of various filters. Precision made of the finest materials. Compact, simple to assemble and dismount. May be permanently affixed to camera or quickly detached

BLIMP for EK 16mm. CINE SPECIAL

This blimp constructed of Dow Metal magnesium, is thoroughly insulated to afford absolute silent operation. Exclusive features: Follow focus mechanism permits change of lens focus while camera is operating in blimp. Blimp takes synchroneus motor drive which couples to camera. A dovetail bracket is provided to mount an erect image viewfinder

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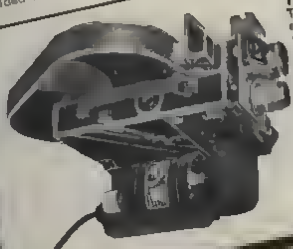

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CAMERA SETUP for a low angle shot of an action scene for Metro-Goldwyn-Mayer's "Battleground." This is one of few instances when company worked outside sound stage in sunlight. Bulk of picture was filmed indoors, in artificial fog and snow. Here cinematographer Paul Vogel, A.S.C., (seated, left) relaxes while director William Wellman instructs cast before signalling the camera to "roll."

"LET ME SEE your dog tags, Major," commands Van Johnson in this scene from "Battleground." Cinematographer Paul Vogel's realistic lighting makes this shot look like it was really filmed on a cold, winter day in Bastogne

Different

. . . and difficult

Ninety percent of the action for "Battleground" was photographed in fog, snow and night time within M-G-M's largest sound stage.

By PAUL VOGEL, A.S.C.

★ ★ ★ ★ ★

THE MORNING filming began on "Battleground" I received a personal message of good luck from Dore Schary, producer of the film, which said in part:

> You carry a big responsibility . . . because so much of the honesty of the picture is going to depend on the quality of the photography."

"Honesty," the keynote of the film, could only be achieved, I felt, by studied simplicity of camera work, devoid of any trick effects or camera manipulation which might tend to distract attention from the action.

This "honesty," an inflexible standard agreed upon by Schary and author Robert Pirosh from the film's inception, offered a challenge. That it proved one of the most interesting and difficult assignments, I have the gray hairs to prove, for almost 90 percent of the action is played in fog, snow and/or night-time, centering around the defense of Bastogne during the crucial Battle of the Bulge.

History—with no appreciation of the cinematographer's problems—had chosen to write one of its most blazing chapters during the foulest of European winters. When the Nazis broke through near Bastogne in 1944, snow and fog joined forces with them, preventing aerial support for the beleaguered G I's.

It should be explained here that except for opening scenes (filmed at Sawtelle General Hospital) and the climax (shot at Fort McArthur), "Battleground" was filmed indoors on Metro-Goldwyn-Mayer's Stage 15. This is a cavernous affair, measuring 130x320 feet with a ceiling height of 70 feet, nearly three million cubic feet of air—air which proved as recalcatory before the camera as cats.

With fog the Order of the Day, we faced the problem of adequately lighting the set while avoiding a possible movieboner of casting shadows. Shadows would automatically indicate sunshine, a non-existent luxury during that dark December week.

All lighting, accordingly, was from overhead, with 130 5K pans, arranged at 20 feet intervals, the first time a major production has been filmed in this manner. When "fog" was flowed onto the set, it served to diffuse the light, creating the necessary effect without throwing shadows.

However, it frequently left actors' faces black under their regulation G.I. helmets. Supplementary lighting for face modelling was used from the floor *up*.

This overhead lighting, while creating the desired result, created problems. The 5K's heated the upper layers of air, starting movement and shifting of colder strata below. This was particularly apparent when only sections of the stage were lit. (To avoid reflections on the fog, at no time did we permit any light at all behind the camera.)

In filming long shots it was impossible to avoid inclusion of some lights. We killed two birds with one stone, photographically and artistically, by masking those light with layers of fog.

Furthermore, despite the constant 40 degrees temperature maintained by the stepped-up air conditioning system, we discovered that soon after lighting the set each morning, the lamp heat started the air currents flowing—but not always in the same direction! We turned this meteorological oddity to advantage placing our fog machines—spraying vaporized light machine oil—at strategic positions, allowing the indoor currents to waft our fog into the desired place.

At all times our foreground was clear, the fog only increasing in density in the background just as it does in actuality Residents of Southern California can attest to this condition, for even in the heaviest fog, the immediate vicinity seems clear.

En passant, the constant fog—chemical, not mental—in which we worked for more than seven weeks killed the desire to smoke. Cinematographers overly addicted to nicotine might try this effective, but drastic cure.

Possibly wartime experience with the U.S. Signal Corps in Italy had conditioned me to this type of filming. In those days we never waited for weather—fog, snow and rain, like the Biblical poor, were always with us. Thanks to our simplified overhead lighting system for "Battleground," and a masterly overall set design by Unit Art Director Hans Peters which permitted a full 360 degrees filming, no time was lost in changing set-ups. It was not uncommon many days

(Continued on Page 448)

SNOW AND FOG, artificially produced within a closed sound stage, proved an obstacle both to photography and effective lighting. Vogel employed overhead illumination entirely—130 5K pans spaced at 20 feet intervals

HALF MILE TRUCKING SHOT was made with dolly instead of camera car, presented problem of handling sound and power cables as camera rolled 2600 feet. "Snow" covering hills is whitewash spray job

STORY TELLING WITH FILM

The Director of Photography's contribution in the science and art of cinematography.

By CHARLES G CLARKE, A S C

"OUR OWN cultural and educational organization, The American Society of Cinematographers, is particularly active in furthering the development of new processes and new techniques in cinematography," said Charles G Clarke, speaking at the opening ceremony of the George Eastman House in Rochester, New York, last month

THE FOLLOWING *address was delivered by Charles G. Clarke, president of the American Society of Cinematographers, on the occasion of the dedication of the George Eastman House in Rochester, New York, on November 9, 1949. Mr. Clarke's address was a feature of the symposium on "The Science and Art of Photography," which highlighted the dedicatory program and in which six other notables of the photographic world participated.* — EDITOR.

I AM PARTICULARLY honored to be present on this occasion of the Dedication of the George Eastman House. To me, Mr. Eastman was a boyhood hero, who today has gone down in history as one of the world's great men. It is fitting and appropriate that his home be made into a shrine of photography so that students may come to understand the great public benefit that he did so much to make popular and practical.

As a student of photography and of the history of the cinema, I personally know what his introduction of roll film meant to the creation of the motion picture film industry. As a representative of the Directors of Photography, it is with a sense of humbleness, and yet with some pride, that I feel we cinematographers have carried on to a fine art from those materials placed in our hands by Mr. Eastman and his associates.

As some confusion exists about the title, "Director of Photography," perhaps a brief summary at this time would be in order. Since the inception of the movies there have been cameramen. Then, as the peculiar technique of the cinema was developed, the cameraman became the cinematographer. As the industry progressed, cinematography took on specialized fields. The cinematographer now devoted more of his talents to composition and lighting and left the mechanics of the camera to members of this staff. Today he directs and supervises the efforts of a large crew of workers and is now known as the Director of Photography. He selects the composition, sets the exposure, conceives the lighting and designates the filters or other photographic controls to be employed.

Some may well ask, "How does motion picture photography differ from regular photography?" While photography is the basis for this particular field, the requirements for *telling a story on motion picture film* have created a technique quite unique from that which went before. The use of moving figures, the lighting technique utilized to obtain plasticity, the effective use of relatively short-focus lenses, as well as the mobile camera all are examples peculiar to cinematography. In the very early days cameramen invented the fade-out and fade-in; the lap-dissolve, the matte shot, the process shot and numerous other special effects that have been incorporated into the technique of writing for the screen.

One of the great problems of picture production is securing stories for the screen. Over five hundred productions are turned out annually by the industry and any author will concur that no such number of plots exist. The studios are therefore obliged to revamp many of the old reliables, give them new casts and dialogue, a change of locale and depend heavily on new photographic treatment. This continual search for new photographic approach is one of the most exciting aspects of the industry. Thousands of workers throughout the land have a hand in it. The physicist creating a new or better product; the chemist perfecting a better formula, the engineer fabricating a machine that will do that which could not be done before. The writer devising a scene in some new and unusual setting, and the producer, director and cinematographer translating it finally to film are all part of a *team* striving to do

(Continued on Page 452)

MANY WORLD NOTABLES attended opening of George Eastman House. Watching Thomas J. Hargrave, president of Kodak, cut ribbon of movie film at dedicatory ceremony, is Mary Pickford (seated in front row, far left) and next to her, Admiral Richard Byrd. The House has been established by Kodak as a public educational institute to further knowledge of photography as a living memorial to George Eastman.

LEE GARMES, A.S.C., started as a property boy at the old Thomas Ince studio. Devising special lighting to enhance features of an early day star put him on the road to success—set the pattern for his individual camera style

JOSEPH WALKER, A.S.C., thought he'd like to be an electrical engineer until he watched a cameraman shoot a scene in a Hollywood studio. He got a job in a lab, and rapidly worked his way up

RAY JUNE, A.S.C., was a lab assistant when the studio cameraman quit and Ray stepped into his shoes

Resourcefulness Paved The Way For Their Success

Second in the series of articles describing how top directors of photography got their start.

By FREDERICK FOSTER

LAST MONTH we pointed out that some of the most successful directors of photography got their start in the natural course of looking for a job; that nearly all of them got into the motion picture business without benefit of a graduate course in photography. These men possessed two dominant attributes, however, that peculiarly fitted them for the career they or fate ordained they were to follow —imagination and resourcefulness.

An example how resourcefulness started one cameraman on the road to cinematic fame is the instance in which Lee Garmes, A.S.C., assigned to photograph "The Duchess and The Waiter," many years ago, made an otherwise mediocre story into a hit picture by devising new lighting for the star, which greatly enhanced his appearance on the screen. The story was considered more or less a lemon, and the male star considered a second-rate actor because he had "bags" under his eyes.

Faced with this situation, Garmes started experimenting on eliminating those "bags" with lighting, and in so doing became the first cameraman to use mazda bulbs instead of carbons. He used

(Continued on Page 454)

SOL POLITO, A.S.C., decided he'd rather shoot movies than project them in "nickelodeons"

New Speed For Films

Hollywood studios, using new film intensifying process, report merked economic benefits.

By LEIGH ALLEN

EVER SINCE the Academy, two years ago, awarded an "Oscar" jointly to Paramount and DuPont for introducing latensification in the processing of motion picture film, several major studios have adopted the process and are using it profitably.

One studio is using latensification consistently in the production of all its "B" pictures with a consequent savings of up to 60% in lighting costs. Others are using it to shave lighting costs on extensive night exteriors or to save footage exposed in adverse light or where it was impossible to use a full quota of standard lighting units. It is predicted that within a year, latensification will have altered appreciably the photographic procedures of all studios, chiefly because of the economic benefits. As one industry spokesman put it, "Latensification is an indispensable part of production today."

The process of latensification, which was described at length by Hollis W Moyse, A S.C., in his article in the December, 1948, issue of American Cinematographer, results in converting to acceptable printing negative, motion picture film that has been deliberately or necessarily underexposed. The process, which is also known as post-exposure or post-fogging, consists of a simple laboratory procedure of re-exposing the underexposed negative to a weak light for a period of time prior to development, thus intensifying the latent image.

The phenomenon was noted as early as 1939 by Robert Cabeen in the course of his work in the DuPont research laboratories. He was intrigued when some exposed negative sensitometric strips, which had unintentionally received an extended safelight exposure, showed a very substantial gain in density in the threshold region. He diagnosed the effect as resulting from the action of the safelight although the strips showed only a very slight increase over normal fog values in the unexposed areas. Further tests confirmed the diagnosis that a small amount of light, applied over a considerable period, has the effect of intensifying the latent image.

Not until the process was suggested to Dr. C. R. Daily of Paramount Pictures was an application attempted in the motion picture industry. Starting late in 1946, Paramount applied latensification to production action stills. Early in 1947, this company extended the latensification process to the treatment of motion picture negative, with remarkable benefits both economic and in picture quality. Today, latensification is an accepted procedure in the Paramount laboratory.

Speaking from the viewpoint of photography, Ray Wilkinson, Paramount's camera department head said, "We feel that latensification affords the cameraman a strong advantage when properly used, and we are likewise pleased when economies are effected. However, we still are of the opinion that it is a special tool to be used with discretion and we do not recommend its indiscriminate use on all artifically lighted sets."

There has never been any pressure on the cameramen at Paramount with regard to the use of this process. All of the men have been made acquainted with its advantages, and its use or non-use lies within their discretion, according to Wilkinson. He emphasized that Paramount does not insist upon use of latensification to effect economies on normally lighted interiors.

"During the past year, the process has been employed to some extent on perhaps two-thirds of our pictures," Wilkinson said, "and its use is steadily increasing. Some productions may have only a few scenes or an isolated sequence subjected to latensification, but in others it is much more frequently used throughout the entire picture, as in the recently completed 'Sunset Boulevard' and 'United States Mail.' "

"Incidentally both of these productions were photographed by John Seitz, A.S.C., and his objective in the use of latensification was quite different for each picture On 'Sunset Boulevard' it was used to permit stopping down for focal depth in a low key light. The greater use of the process on 'United States Mail' occurred while the company was on location shooting the steel mills at Gary, Indiana. In this instance, the use of latensification could conceivably have meant the difference of shooting or abandoning the location, as the vastness of the area covered together with the extent of the camera moves would have made conventional lighting methods virtually impossible. Naturally, tremendous economies were effected and it was felt, upon reviewing the material, that the quality was actually enhanced rather than harmed," Wilkinson concluded.

It is reported that Columbia Pictures is now making more extensive use than

(Continued on Page 456)

LATENSIFICATION, TIME AND MONEY SAVER

Introduced in the motion picture studios two years ago as a method for increasing the effective speed of negative film after exposure, latensification—

- **. . . is now being used by Columbia, Peremount, Werner Brothers, 20th Century-Fox, R.K.O., Republic and Samuel Goldwyn studios.**
- **. . . permits economies in set lighting costs up to 60%.**
- **. . . can seve footage exposed in edverse light; permits meking good negetives in sub-normel light.**
- **. . . widens scope of filming night exteriors.**
- **. . . permits stopping down lens for focel depth when shooting in low key.**
- **. . . requires no costly equipment installation.**

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and
The New Year—

YOUR AUTOMOBILE may be used in a number of ways to make moving camera shots. For an effective dolly shot, mount camera in trunk compartment, as shown here. For a lengthy travel shot, tie down camera securely and partially deflate tires to cushion bumps

Moving Camera Shots In Amateur Movies

By RAY FERNSTROM, A S C

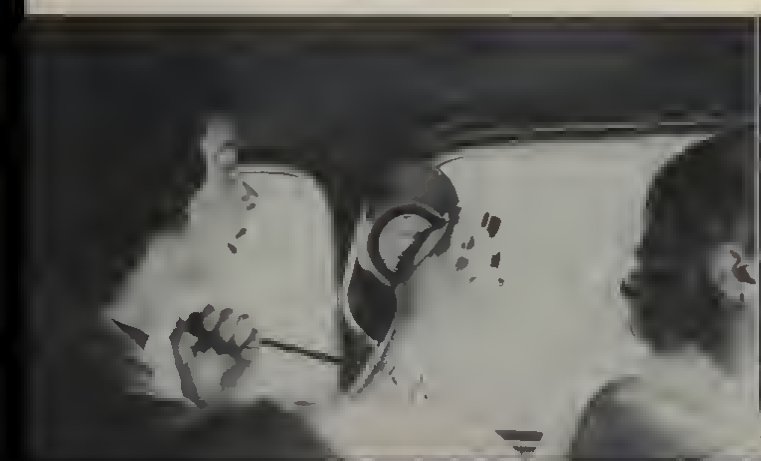
IF YOU HAVE access to any vehicle that has four wheels and will support your cine camera, you have the means for making moving camera shots for your movies. Such vehicles may range from a lowly roller skate or toy wagon to your automobile and all can be put to good use by the amateur to add effective cinematic touches to his films. The pictures on this page show how one enterprising movie amateur employed her automobile as a camera dolly, mounting the camera on the hood for a trucking shot, inside the car for an unobtrusive follow shot, and then set her camera up in the trunk compartment to shoot action as the automobile driver pulled away from the scene

Too few movie amateurs use the "fluid" camera technique because they mistakenly believe that such technique calls for elaborate studio-type camera booms and dollies. The amateur has only to experiment a little to discover how much more professional his movies can be made to appear on the screen when the camera moves in for a closeup or follows action on a dolly —all in a single shot, without the disruptive effect of a series of cuts.

Why should we use a moving camera? The question is a logical one in view of the fact there is usually quite enough motion within the average movie scene. However, there are several good reasons why the moving camera is an indispensable part of effective motion picture technique. First, when a camera

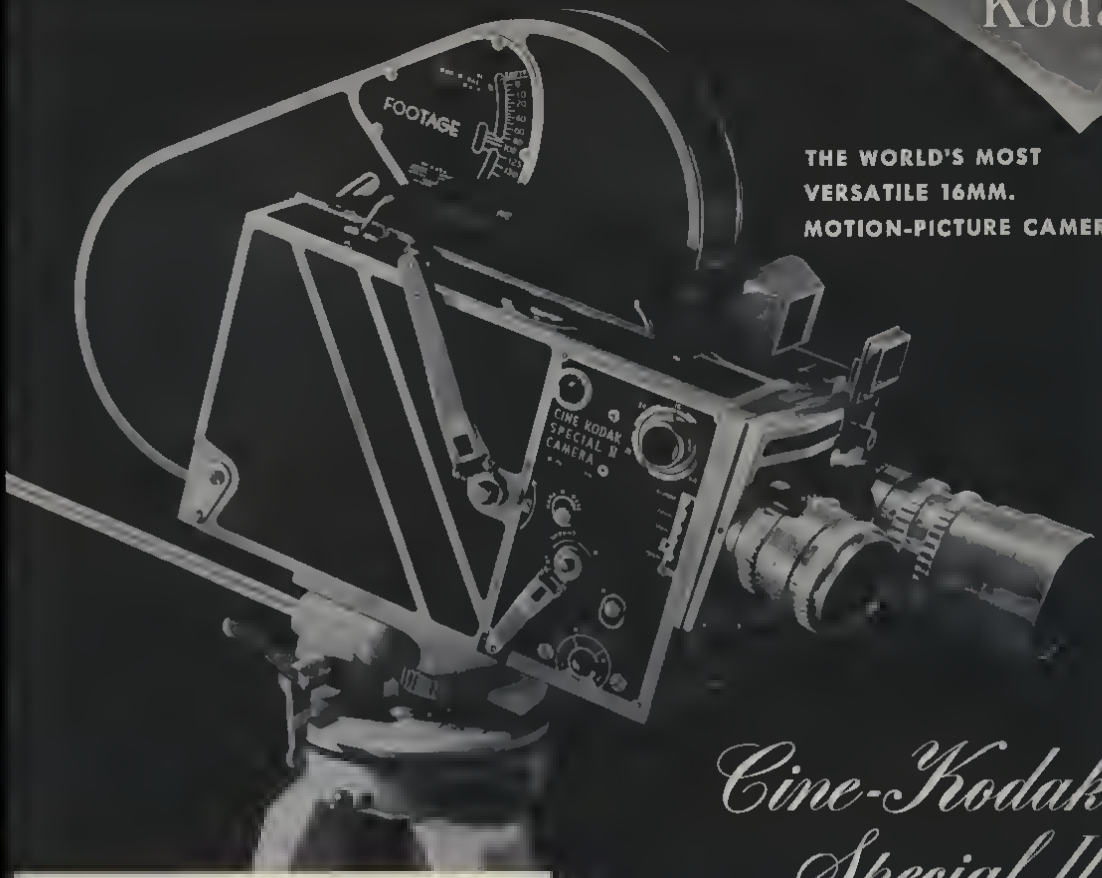
(Continued on Page 449)

WITH CAMERA mounted on tripod and set up inside car, you can shoot interesting action unobserved, make follow shots with professional style. Always shoot through open windows. Shooting through glass may cause distracting ghost images on film



FOR A SLOW dolly shot of limited scope, mount camera on light tripod and place on hood of car, as shown here. Heavy comforter holds tips of tripod legs securely

Kodak



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There's no trick to switching focal lengths . . . no risk of obscured movies. Because the turret is angled, you can use any two Kodak Cine Lenses in combination without the slightest physical or optical interference—regardless of speed, focal length, or barrel design.

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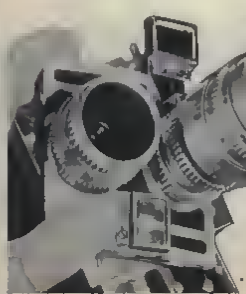


One of a series of pages which help to explain why Cine-Kodak Special II Camera is known as the world's most versatile 16mm. motion-picture camera.

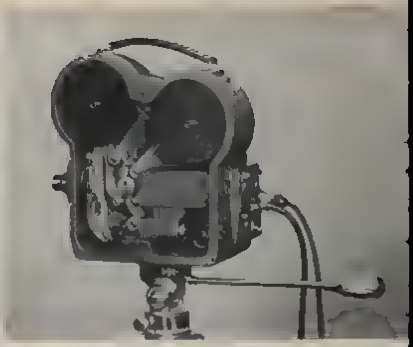
Superb 16mm. motion-picture camera with the controls for special effects integral with the basic model. Fully capable for precision movie making just as it's supplied . . . and further adaptable through accessories to meet the specialized requirements of every field served by 16mm. motion pictures.

One of Cine-Kodak Special II Camera's standard features is described at the left. For further details about this outstanding 16mm. camera, see your Kodak dealer . . . *or write Rochester for the free booklet, "Motion-Picture Making with the Cine-Kodak Special II Camera."*

EASTMAN KODAK COMPANY, Rochester 4, N. Y.

Cine-Kodak Special II Camera is illustrated with 200-foot Film Chamber, standard Kodak Cine Ektar 25mm. f/1.4 Lens, and accessory Kodak Cine Ektar 63mm. f/2.0 Lens.

LOW PRICE and simplicity of operation of the Cine-Voice camera now make it possible for movie amateurs to make 16mm sound films in color or black and white, just like the professionals. It's destined to open new horizons of filming for the advanced sine amateur.



EASY TO THREAD is the Cine-Voice, and simple to operate as any 8mm or 16mm cine camera. Maximum film capacity is 100 feet—takes 50-foot spools, too.

DESIGNED for the advanced amateur, the Cine-Voice will find use in many professional fields, too, such as production of instructional and television films.

A 16MM. SOUND CAMERA FOR THE HOME MOVIE MAKER

Biggest news for movie amateurs since advent of the cine camera is Auricon's new "Cine-Voice" which records picture and sound simultaneously.

By GLENN B LEWIS

EVER SINCE the first 16mm. sound-on-film projector was introduced, the home movie maker has dreamed of the day when a 16mm camera would be available for making talking-pictures at home. The new Auricon 16mm. "Cine-Voice" sound-on-film camera is the answer to that dream!

Designed and built in Hollywood by the Auricon Division of Berndt-Bach, Incorporated, this new 16mm. sound camera features simplified controls, weighs only 12½ pounds, and is priced within reach of the advanced 16mm. movie maker. It can be used for making talking pictures around the Christmas tree, during vacation trips, at birthday parties, or even during baby's bath, all with theatrical brilliance and clarity.

To record the actual sounds as they occur along with the picture, you merely place the Cine-Voice microphone outside of camera range, adjust the amplifier, and shoot. Synchronization of sound and picture is automatic, as both are put on the film at the same time.

The Cine-Voice camera is driven by a constant-speed electric motor. The camera's 100-foot film capacity provides a

(Continued on Page 446)

CAMERA, microphone and sound amplifier and controls all fit snugly into this compact, light-weight carrying case. Portable batteries supply the power.

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Competition open to members of amateur movie clubs within the United States. Non-movie-club-members may also compete by submitting films through their local amateur movie club. (See rules below.)

RULES

- Each entry must be wholly amateur produced, except for any titles and film laboratory work. Any sound accompaniment must be recorded exclusively by the entrant or club submitting the film.
- Competition open to members of amateur movie clubs within the U.S. Clubs will evaluate and enter the best 8mm and best 16mm film completed by a member since January 1, 1948. Individuals (non-club-members) may also compete by submitting films to their local amateur movie club for entry at discretion of the club. (Refer to your local camera store for name and address of local club, or write the Editor.)
- Amateur movie clubs may enter films not to exceed 4, as follows:
  - Best 8 mm member-made film
  - Best 16 mm member-made film
  - Best 8mm non-member film
  - Best 16mm non-member film
- Film length limits: 16mm—800 feet. 8mm—400 feet.
- Entry Fee: $1.00 for each subject submitted.
- Each film reel as well as its container must be plainly and securely labeled with owner's name and address **plus** name and address of club entering the film.
- All films must be shipped on reels and in cans to contest headquarters fully prepaid. Entry blank and fee should be mailed in advance of film. Films will be returned directly to owner via Express collect, fully insured. **Be sure** to indicate value on your entry blank for which films are to be insured.
- Please indicate make and model of camera and the lenses used in making your picture, also brand of film used. This information will have no bearing on evaluation of films, but is desired by judges for reference.
- Do not submit any films before **January 1, 1950**. Send only your entry blank which may be obtained by writing The Editor, American Cinematographer, 1782 No. Orange Drive, Hollywood, Calif.

16MM. SOUND CAMERA

(Continued from Page 444)

maximum of 2¾ minutes of continuous recording when a scene of this length is desired. The camera can be hand-held or mounted on a light-weight tripod when telephoto lenses are used.

Eastman Kodak, DuPont and Ansco all furnish sound film on 100-foot daylight loading spools for the Auricon Cine-Voice camera. Either regular or Type A Kodachrome film may be used, too, to make movies in color and sound.

Sound is recorded in the Cine-Voice camera with standard 26 frames separation between sound track and corresponding picture. This means that sound movies made on the Cine-Voice camera can be threaded into any standard 16mm. sound-on-film projector when it is received from the film processing laboratory, and the recorded speech or music will be played back in perfect synchronism with the pictures. If splices are made in this film, the sound and picture will still maintain perfect synchronism, just as Hollywood feature pictures do in your neighborhood theatre.

The sound track made by the Cine-Voice camera is photographed along one edge of the film by a "galvanometer." All the sound recording lenses and the galvanometer are extremely rugged in construction and require no adjustment of any kind. The Cine-Voice equipment can be subjected to audible shock such as gunfire, without damage. The galvanometer is as rugged as your telephone receiver, and will operate in any position, whether the camera is being hand-held or on a tripod.

The sound track recorded by the Cine-Voice galvanometer is of the variable area type, which has proven to be most successful, especially since the film processing needed for this type of sound track is not critical. The galvanometer is driven from a 5 tube amplifier, having the necessary controls for recording highest quality sound—speech or music. The amplifier has two meters: one to indicate volume of sound being recorded on the film, and the other to indicate the exposure of the sound track. The meters are calibrated and previous experience in sound recording is not needed to understand their use and operation. The sound track exposure indicator meter also provides a means of checking on the condition of the amplifier batteries, which are of the portable radio type. Replacements can be obtained at any radio supply store.

Two input plugs are provided on the Cine-Voice amplifier: one for the sound recording microphone and a second input for connection to a crystal phonograph

pickup. The microphone input has a volume control and also a speech-music tone control connected with it. The phonograph input permits feeding music from phonograph records into the amplifier at the same time speech is being picked up by the microphone, so that both speech and music can be put on the film at the same time if desired. The amplifier and batteries are contained in a lift-out tray in the large carrying case, so that the carrying case can be put to one side and the amplifier and batteries in lift-out tray can be placed on a convenient chair or table. The amplifier has sufficient power to record satisfactory speech when a person is talking in a normal tone of voice outdoors as far as 6 feet away from the microphone.

Not only is the Cine-Voice a sound recording camera, but it is also a precision-built photographic instrument. The film is handled at the picture gate on stainless steel balls, a patented Auricon feature until recently used only on 16mm. professional cameras.

The intermittent film pull-down claw is made of hardened steel, precision-ground to size. It moves the film gently from one picture frame to the next, and is noiseless in operation. The Auricon film movement was specially designed for use in sound recording cameras, and permits silence of operation so that camera noise is not picked up by the microphone. The entire camera mechanism is mounted on a solid aluminum casting, precision-machined. All the parts are thus held in exact alignment.

The Cine-Voice camera body is also of solid aluminum, precision-machined for ruggedness and light weight. The camera takes "C" mount lenses, such as used with most popular 16mm. cameras today.

A control panel at rear of camera provides plugs for connecting camera to the sound-recording amplifier and also for connecting camera motor to a source of 110 volt 60 cycle A.C. current. The Cine-Voice camera is so quiet in operation, that a pilot light is provided that flashes red when the motor is on. This prevents accidentally running camera.

A newly designed optical system provides the Cine-Voice user with a large, clear picture in the finder. The finder's maximum aperture covers the 15mm. wide angle lens. Professional-type transparent plastic mattes may be inserted into the finder to adapt it for other lenses. A matte for 1" lens is provided as standard equipment. Mattes to match other lenses are available as extra equipment. A parallax adjustment is provided on the Auricon finder, which allows complete accuracy in framing pictures, down to 4 feet. A footage indicator is a built-in feature, so that the amount of unexposed

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City ..... Zone ..... State .....

film left in the camera can be seen at a glance.

The camera is finished in an attractive gunmetal-gray baked enamel finish, and a steel reinforced leather handle is provided at the top for convenient carrying. The case furnished with the Cine-Voice equipment will carry both the camera and amplifier with batteries, together with the microphone, headphones, microphone-cable, and mike desk-stand. The carrying case is made of plywood and covered with leather-grained maroon fabricoid.

DIFFERENT AND DIFFICULT

(Continued from Page 437)

to complete more than 20-odd set-ups, an achievement aided by the absence of the usual painted backdrop.

Except for three sequences, which called for actual reproduction of Bastogne and environs, our backing was pure white, a continuous strip, approximately 1000 feet, covering the stage's four walls. When seen through a film or fog, it created the hazy effect of distance. (This complete utilization of every inch of floor space resulted in the only sound stage I ever saw devoid of stars' dressing rooms, chairs or benches. We stretched out on the dirt.)

The plain backdrop—an idea evolved by Cedric Gibbons, Supervising Art Director, and Camera Department Head John Arnold—offered unusual lighting possibilities. Rather than flood this evenly with light in the conventional manner, I lit it unevenly, creating the effect of varying degrees of depth and distance.

Snow, which played a major role during the actual siege of Bastogne, also presented problems. Using the new fire extinguisher type liquid, whipped, vaporized and blown through whirling discs (a mammoth combination of mixmaster and shower head!) we produced realistic snowfalls which could be regulated as gentle fall or violent blizzard. It fell, piled into drifts and clung like the natural thing. This called for the camera crew and Director Bill Wellman to work frequently from inside a tent. In addition to its realism our snow had the nasty habit of staining clothes and proved painful on contact with the naked eye.

Only one special camera gadget was used (front cover). Inside a light steel framework the camera was suspended from light coil springs, braced horizontally and vertically by additional springs. For sequences showing collapse of a house or foxholes during artillery bombardment, I struck the framework a sharp blow. The camera, jarred momentarily, quickly "jittered" back to normal, creating the concussion effect of a heavy explosion. We rehearsed the house col-

lapse meticulously, with an intricate system of cue lights and buzzers, for once destroyed that particular set would have taken several days to reconstruct. It had to be right first take.

Dolly and panning shots were held to a minimum. On only two occasions, when photographing troops drilling and marching, were trucking shots used. One —on the rolling hills behind Fort McArthur—ran for nearly a full half-mile, and without benefit of camera car. This sequence, by the way, proved a field day for a local whitewash concern, who "snowed in" a mile of the countryside spraying the stuff through three-inch hoses.

Only for this and preceding sequences showing the break-through of sunlight, a focal point in History and "Battleground," did I use arcs, controlling the change from complete fog to partial sunshine by using shutters on the arcs to denote the sunshine source.

Our guide and yardstick throughout was U.S. Army film, loaned the studio as part of the 100 percent co-operation M-G-M received, including official records, still photographs and equipment. To capture the authenticity or "honesty" desired, well over a million feet of wartime film was checked, a labor of love, I think, which paid dividends.

Co-operation, in fact, highlighted the entire production. I was unusually blessed in this respect with the help and encouragement I received from Schary, Wellman and Bob Pirosh to Cedric Gibbons and all connected with the film.

In restrospect—now that the "shooting" is all over — "Battleground" now appears more of a "different" than a "difficult" assignment. Though physically unpleasant with the constant fog, snow and wind, at least it was a mutual discomfort, enjoyed by the entire company.

MOVING CAMERA SHOTS

(Continued from Page 442)

is set up for an effective static composition and securely locked in place, the pictorial result may be striking according to the criteria one would use in evaluating a still photograph. However, if this composition is to be retained throughout the scene, it is evident that the action which takes place in that scene must be limited to the boundaries of the frame. The result is not only static visual composition but inhibited action as well. The obvious alternative to this cut and dried presentation is the use of the *pan* and *tilt*. But here, the uninitiated often goes overboard, "spraying" the landscape as if with a garden hose.

In between these two extremes lies the moving camera shot. It is effected by placing the camera upon some mobile base so that it can be freely moved about the locale. In the studio, the "movable bases" range from small dollies to huge camera booms capable of swinging many feet into the air.

The moving camera shot has two main purposes. Its most legitimate function is to follow action; that is, to actually go along with the pattern of movement executed by a player or some other active element of the scene. The second effective, if somewhat less legitimate, use of a moving camera is to force action into a scene which might otherwise be static or lack proper dramatic emphasis. Above all, the cine amateur must realize that in order to be professional, his moving camera shots must be executed smoothly and not too rapidly.

Let us explore some of the practical uses of the moving camera in relation to the amateur film. Let us say that Little Sister is having a birthday party. In the climactic scene, she has opened all of her lesser presents, and begins to open the package containing the huge doll which Mother and Dad have bought for her. The conventional way to handle this sequence would be to start with a medium shot of Sister opening the present, cut to a close-up of the doll as it is unwrapped, cut back to a medium shot of Sister lifting the doll out of the package and clasping it to her, and finally cut to a close-up of sister ecstatically hugging the doll. Through the use of the moving camera, this entire sequence of four scenes could be filmed in one shot, with much better flow and continuity than in the chopped-up version. For example, we could start with a close-up of the package being unwrapped. As the doll is revealed, the camera would pull back to a medium shot of Sister's first reaction. Then the camera would move in to a close-up of her face as she happily holds the doll.

The advantages of this method should be obvious. In the first place, instead of four separate setups, resulting in four abrupt cuts, only one would be required. Second, the entire action is complete as filmed, thus eliminating the necessity for cutting. Finally, there would be a natural flow of action as opposed to the jerky result that might be achieved if you had to stop Sister after each small segment of action, make a new camera setup, and then expect her to re-create her enthusiasm for the overlap of action.

When the camera pushes in or pulls

(Continued on Page 451)

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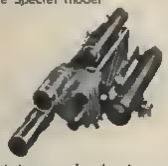

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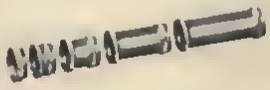

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MOVING CAMERA SHOTS

(Continued from Page 449)

back at an accelerated speed, the effect is known as a "zoom shot." This device is very effective when applied to a particularly dramatic sequence, because it forces an immediate focus of audience attention toward a particular small but important segment of the scene. Obviously, however, it should not be used too often or in a sequence which does not demand such emphasis. It is often effective to conclude one sequence by zooming to a close-up and begin the following sequence by pulling back from a related close-up. Thus the moving camera shot becomes a useful continuity device by helping to effect smoother transitions.

The *follow-shot* is perhaps the most functional device for the use of the moving camera. As the name implies, it is used to follow a particular pattern of action, especially when the action covers a considerable space. In order to set up a good follow-shot, it is first necessary to rehearse the action exactly as it will be staged for the camera. Draw a diagram of this action in relation to the setting. Next, decide where the camera should be in each separate stage of the action in order to capture the full effect of the situation. The next step is to link these separate camera positions together with lines indicating the path which the dolly must follow in order to achieve proper coverage. A rehearsal with the camera will then show up any awkwardness in camera movement as related to the action, and adjustments can be made accordingly.

In some cases, the camera will have to move only a very few feet in order to cover the action; in other instances, such as a situation in which a character is driving down the street in an automobile, it will be necessary for the camera to follow the action over great areas of space. The fundamental principles of technique involved, however, remain the same.

The question naturally arises as to how the amateur is to achieve these effects in terms of required equipment. As we have already stated, it is not necessary to have huge camera booms; a bit of ingenuity coupled with the sparsest equipment will often do the trick quite satisfactorily.

A child's wagon is one of the most obvious and popular vehicles to be used as the movable base for the camera. The wagon should be big enough to comfortably accommodate both the camera and the cameraman. As wagon wheels are usually made of solid rubber mounted on rigid discs, the problem of bumpiness becomes important. This situation can be alleviated through the use of smooth lumber planks pressed into service as dolly tracks.

Offered on the market are several light-weight triangular dollies constructed simply of three pieces of metal tubing and three wheels. Such dollies have their applications, but since the cameraman must run the camera and push the dolly at the same time, the chances of really smooth camera movement are greatly diminished.

It is much better to have the cameraman concentrate solely upon the handling of the camera and to have someone else push or pull the dolly. A satisfactory dolly can be easily constructed out of lumber and a few other inexpensive materials. Basically it is nothing more than a wooden platform mounted on wheels (preferably pneumatic) with a T-handle in back. The rear axle should swing freely, so that dolly shots can be made around corners, etc., but a rigid stop should also be included so that the wheels can be set for a straight movement in or out.

For follow-shots outdoors where the action transpires over a relatively large space, an automobile (especially a con-

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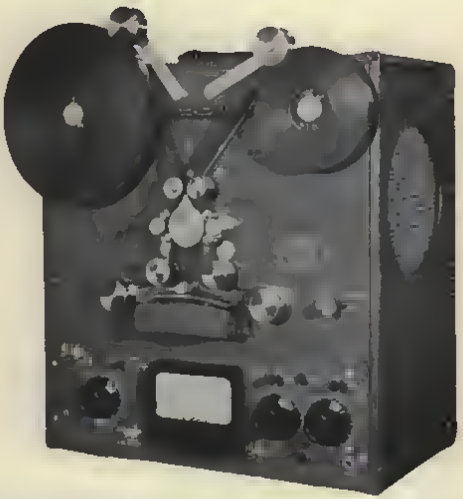

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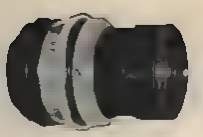

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vertible) can very often be used to fine advantage. The automobile can either be run under its own power, or for smoother effect it can be pushed by a group of husky stalwarts. To ensure even greater smoothness of operation it is advisable to let about half the air out of the tires. Lacking a convertible, it is sometimes quite satisfactory to point the camera out of the window of a closed car.

Elevator-shots are obtained in professional motion pictures through the use of a giant camera boom equipped mechanically to zoom up into the air. For the amateur, the elevator-shot is a much more difficult proposition, but one which is not absolutely impossible to achieve. One of the neatest substitutes for an elevator boom is a hydraulic lift of the type used in service stations. Of course, the limitations of this alternative include the necessity of getting the permission of the service-station manager to put a platform across his hydraulic lift and running it up and down, as well as the limitations in background.

In the filming of specialized subjects, cameramen have often taken advantage of devices such as loading-cranes and construction-elevators already set up for some other purpose. For interiors, a perfect elevator substitute when available is the small type of hoist truck called a "goose" which is used in warehouses to haul and lift various loads into place. The hydraulic lift mechanism of this truck works smoothly and at the right rate of speed. Coupled with the mobility of the truck itself, it forms a perfect elevator boom for the amateur cameramen whenever he is lucky enough to find one.

The moving camera shot is a professional technique which the amateur cameraman can adapt to advantage in the filming of his own movies. A bit of ingenuity will enable him to achieve fluid camera effects similar to those which Hollywood's top cameramen use so effectively in the major studios.

STORY TELLING WITH FILM

(Continued from Page 438)

something better and more interesting than it was ever done before.

That the Director of Photography will exceed his share, is taken for granted in Hollywood. Every production attempts to be different from another and each presents a challenge for new photographic approach. Upon being assigned to a new production the Director of Photography carefully studies the script and plots the style of photography most appropriate to the story. He aids in selecting the locations and offers suggestions towards set construction, painting, makeup and costuming—all to the end that the production may be made artistically and with the utmost economy.

The Director of Photography plans his photographic treatment so that each setting will take on a sense of reality and enhance the story idea and mood of the picture. The director and the cinematographer work as a team and each exchange suggestions about lighting and the staging of scenes. Whenever possible, the style of lighting is varied from sequence to sequence so as to add interest and impact to the photographic effects. At all times must the players be photographed to their best advantage. The studios have made tremendous investments in building their stars. Every effort is expended to display them most ideally. As there is no retouching possible in movie film, our stars must be very carefully lighted so that they appear their most glamorous. The science of lighting is therefore highly developed among the Directors of Photography, and is an art that is constantly being refined. We strive to obtain photographic interest combined with a sense of reality, yet being on guard that the photography never detract nor overpower the story being unfolded upon the screen. Our lighting technique has lent its influence to other branches of the art. Commercial and portrait studios frequently adopt our style and use much of the equipment developed by the cinematographer.

The economies of motion picture production invariably fall on the Director of Photography. He is expected to utilize more tricks and lighting devices to cover lack of actual construction, yet create the illusion that such construction exists. More and more of our scenes call for process photography whereby a still or motion picture is projected from the rear on a translucent screen. To effect a composite scene realistically, ingenuous lighting must be devised to light the subject naturally, yet keep the screen in darkness.

In recent years there has been increasing tendency to utilize natural interiors for motion picture settings. Many of our current productions transpire in Macy's; in some Court House, store, private home or Public building. This has given our productions a sense of authenticity, but in doing so it has presented new problems to the cinematographer. To light such interiors and the players therein to the standards expected of us is a challenge. To meet with these conditions, often huge filters need be placed over windows and doors to balance exterior light with that available inside. As lights can seldom be placed overhead, horizontal sources must be employed. Reflections from glass, marble and other shining

surfaces add to the complications of natural reproduction.

As action is the motivating force of the cinema, the majority of our scenes today require the mobile camera technique. Our cranes, velocilators, dollies and camera mounts are wonders of engineering and construction. Few realize however, the difficulties of lighting these moving shots. The actors must be well photographed under all conditions, yet there can be no shadows from these traveling monsters. The ever present microphone constantly hovering close overhead, darting here and there as the actors speak, creates a shadow problem of no mean proportion. To cope with the microphone situation in sound films, a whole new lighting technique had to be devised. Ingenuous light shields and masks have been evolved to eliminate stray, shadow-casting light.

Our sets are broken up with light patterns that stay clear of the microphone. We use dimmers for mazda lamps and shutters for arc lights to bring their illumination into play where needed. The sound blimp encasing the camera is a bulk in itself that is an obstacle to lighting, and in moving shots is a shadow-maker. Thus, many moving scenes cannot entirely be pre-lit because of shadows cast by the equipment. Until the precise moment shadows are clear, offending lights remain out. They are then brought on, and then dimmed out after they have fulfilled their use.

Infra-red film is used for making many of our out-door productions. Properly used, it lends extra Pictorial interest and excitement to the action. Many of our standard and overworked locations take on the "new look" when photographed with infra-red. New make-up had to be devised for infra-red and in this the cinematographer carried on research with the make-up manufacturers to secure proper materials.

Color photography continues to make progress but will always require a delicate sense of lighting values. We are avidly encouraging the manufacture of better films, meanwhile mastering some of the shortcomings of present processes. Dramatic, low-key lightings create the problem of red faces and color distortion when filming in color. Yet, progress demands imaginative lighting to keep abreast of requirements of production. To a great extent the Director of Photography has devised a means of lighting that avoids these short-comings, and in so doing make the processes appear better than they are. Increasingly more productions are filmed in two-color, single film monopack and the three strip methods. A special photographic technique is required for each.

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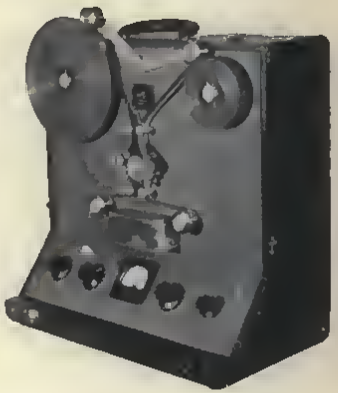

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tography has long been the goal towards which much effort has been put forth That it will eventually come into use is only a matter of time and research. The director of Photography assists in new technical development by suggesting improvements and by testing new materials before they become commercially available Our own cultural and educational organization, The American Society of Cinematographers, is particularly active in furthering the development of new processes and new techniques in cinematography. Recently we added to our clubhouse in Hollywood, the finest of projection facilities, which now make it possible for manufacturers and others in the industry to demonstrate new films, new color processes and new photographic innovations to the cameramen of Hollywood, enabling them all to keep abreast of those developments which are so vital to the progress of the art. We invite co-operation from all sources that will enhance that miracle of the modern age—*photography.*

RESOURCEFULNESS PAVED THE WAY . . .

(Continued from Page 439)

two mazda bulbs with empty tomato cans as reflectors, and to the amazement of everybody, he eliminated the dark splotches the "bags" had always made on the star's face.

When he saw that this worked, he rigged up a lot more mazda bulbs, hanging them about the set. The result was that he succeeded in making the picture with a wide range of tone values instead of sharp blacks and whites which characterized arc-lighted pictures.

In his youth, Garmes' interest in movies was so intense, he persuaded his folks to move to Hollywood from Denver so he could try for a job in one of the studios. He heard of an opening for a property boy at the old Thomas Ince studio, applied and was hired, and soon caught the eye of cameraman John Leezer who took him on as his assistant and taught him the business. After several years as an assistant, he was given the job as first cameraman on a series of Gale Henry two-reel comedies, and subsequently was assigned to photograph his first full length feature. A Menjou picture followed shortly thereafter and Lee Garmes was well on his way to success. He recently completed shooting "With All My Love" for Samuel Goldwyn, the photography of which is marked throughout by the well-known Garmes' resourcefulness and imaginative treatment.

The resourcefulness of Joseph Walker, A.S.C., in applying his knowledge of high tension electricity in the staging of an early-day motion picture scene, led him to taking up cinematography as a career. Walker is one of the few directors of photography who never served an apprenticeship as assistant or second cameraman. He was an electrical engineer His specialties were what was then called "wireless" and high tension electricity. In this latter capacity he was one day called into consultation by a studio to advise how to stage a scene in which an actor was to sit on an electric chair that was to emit sparks.

It was while rigging up the sparking apparatus for the chair and during the subsequent photography of same that Walker was bitten by the photographic bug. Not long thereafter he gave up his electrical job and went to work in a motion picture film laboratory. Here he worked through every stage, from sweeping the floor to developing negative, tinting, toning and printing. When a rush call came through for a cameraman one day, and no one was available, Walker, despite his lack of experience in camerawork, talked himself into the job—and made good. He's been making good ever since.

"That may sound like coming up the easy way," he said, "but it wasn't. I had to find out everything for myself—and do it the hard way." Walker's independence and self-reliance has given his work an individuality which has made him one of the industry's really outstanding directors of photography.

Incidentally, the man generally credited with establishing the title "director of photography" is Sol Polito, A.S.C., who back in the early Vitaphone days of sound films at Warner Brothers studio, convinced studio executives that the cinematographer, now charged with the greatly expanded scope of photographing movies with sound, could be more valuable in a supervisory or directorial capacity than operating his own camera. Back in those days the first cinematographer acutally operated the camera. If there was such a thing as a second cameraman, he was there to operate an additional camera.

"In those days," said Polito, "they didn't think they could cut the sound track as flexibly as picture film. This was because the sound was recorded on discs instead of film. Thus, every cut or angle of a complete sequence had to be shot all at the same time, and this involved using six to eight cameras shooting from all angles at once. Planning the lighting and compositions for that many cameras was a real job. To do it well and at the same time operate one's own camera proved impossible." Polito convinced the front office of the wisdom of his suggestion for a director of all photograph-

ers and his plan has remained in practice ever since.

Polito's first job in the picture business was as a projectionist in a small theatre While grinding out pictures night after night, be determined to become a cameraman and create the pictures instead of merely projecting them. His opportunity came when he met Tony Gaudio, then chief cinematographer for Carl Laemmle's old Victor Company, which was a subsidiary of Universal. There were no such things as assistant cameramen in those days but Gaudio took Polito under his wing as a sort of protegé-apprentice and taught him the camera business. By 1913 Polito was sufficiently proficient to land a job as cameraman with the IMP company, which was the producing branch of the Universal organization.

Sol Polito's ever-adventurous nature and resourcefulness soon had him out on a limb at IMP. At that time, the studio had been shooting all its interiors with Cooper - Hewitt mercury - vapor floodlights. Arc lights for studio use had just been introduced, but few studios would accept them. Sol decided to try on one scene what we now call "effect lighting," using an arc lamp to cast strong shadows on the set. When the rushes came through the studio executives were furious. The shadows, they said, detracted from the actors and ruined the scene! And Polito was fired.

"Yet, today," Polito will tell you, "it's traditional that cinematographers are paid more for the shadows they create than for the highlights!"

Readers who may not be familiar with Polito's name on the credit titles will at least remember his superb photography of such pictures as "Sorry, Wrong Number," and "Anna Lucasta."

Ray June's advent in cinematography encountered parental rather than studio hurdles. Back in 1914, people in June's neighborhood didn't rate movie folk very highly and Ray's folks put their foot down flatly on any suggestion that he accept a job that was open in the laboratory of a studio in Ithaca, New York. But he got around this when he explained that inasmuch as his job at the lab called for working nights, he wouldn't come in contact with movie people.

While on this job, the studio's lone, temperamental laboratory chief failed to show up one day. "He just didn't come to work," Ray says, "and there was the day's shooting to develop and print—and only me to do it! Luckily I'd learned enough so I knew how to mix the chemicals and dunk the film. Thus I became the successor to the studio's laboratory head."

Several weeks later, the studio's head

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cameraman neglected to show up and again Ray came to the rescue. He'd never operated a camera before but he had watched the cameraman enough so he pretty well knew what to do "This was only three months after I'd first set foot inside the studio," said Ray, "and there I was a full-fledged first cameraman!" Which is just about the record for a man who started from scratch and without any previous experience. June is celebrating his 34th year as a cinematographer at MGM where he has been a director of photography for many years. You'll have a chance to observe his skillful camera work in Metro's "Nancy Goes To Rio," starring Ann Sothern, and "The Reformer And The Redhead," starring June Allyson and Dick Powell.

George Folsey, A.S.C., is another MGM director of photography whose entry into cinematography is an interesting story. When George was fourteen and job hunting, the local Y.M.C.A. bureau sent him to fill a call for an office boy at the Lasky Feature Play Company. The name didn't mean anything to him and he was on the job a day before he knew what kind of business he was in. The next day when such stars as Mary Pickford, Carlyle Blackwell, John Barrymore and Harold Lockwood brushed past him on their way through the studio, he decided he was going to like the job no matter what.

As time went on, he was often pressed into service to take the part of an office boy or a messenger boy in a scene, or perhaps a prop boy. Finally there came the opportunity to go out on the set as an assistant to one of the cameramen.

"It was my first introduction to photography," said Folsey. "Up until this time I'd never touched a camera—never even owned a box Brownie. But somehow, I took to it instinctively."

Four years later Folsey was promoted to second cameraman and then his luck changed. The first cameraman with whom he worked, a temperamental Frenchman, suddenly decided one day to retire to his native France and raise violets! The picture was only half finished — but George Folsey, then only eighteen, stepped into the Frenchman's job and the most difficult assignment he has ever had.

"It wasn't just an ordinary picture," said Folsey. "The star, Alice Brady, was playing a dual role—and a difficult one. She had to talk to herself in two characterizations, shake hands with herself, and pin jewelry on her "double"—routines that are simple to handle today in this era of optical printers and process photography."

With all his innate resourcefulness, Folsey met the challenge—not with elaborate mattes—but through skillful lighting, and doing many of the takes with the set completely masked with black velvet. The rest is history. George Folsey continued to rise to the greatest heights in his profession and today he is one of MGM's most talented and resourceful directors of photography.

Next month we'll describe some of the men who already were experienced in still photography when opportunity knocked and beckoned them to the more lucrative and specialized field of cinematography.

NEW SPEED FOR FILMS

(Continued from Page 440)

other studios of the latensification process, shooting all their "B" pictures with purposely reduced illumination and subjecting the negative to post-exposure. Here they term the procedure "50 foot candle lighting," rather than latensification, because these pictures are all photographed with illumination of 50 foot candles, as opposed to the 120 foot candles formerly used. This results in a saving of up to 60 per cent in lighting costs, they say.

By fixing the illumination norm at 50 foot candles, there is no question in the laboratory about the amount of post-exposure that must be given the negatives. From exhaustive tests made when Columbia adopted the latensification process about eight months ago, the laboratory knows exactly how much post-exposure to give the negatives photographed especially for this treatment.

Obviously there is considerably economy in lighting costs effected by the use of 50 foot candle illumination. Because Color-Tran units and photofloods are mostly employed for set lighting, the time required for rigging conventional heavy lighting units on sets is eliminated. "For these productions," one studio spokesman said, "we do all the lighting from the floor. If there is need for an ovrehead light, it is quickly clamped at the top of one of the walls of the set. But the rigging of overhead lights is definitely eliminated."

Use of the "50 foot candle" system has made it necessary for the cinematographers employed on such productions to adapt themselves to the new lighting. Phil Tannura, A.S.C., and Henry Freulich, A.S.C., who have filmed a great many of the "50 foot candle" pictures at Columbia, found no difficulty in adjusting their techniques to meet the reduced illumination level.

It is in the production of their comedy shorts and action westerns that Columbia has discovered "latensification" effects the greatest economies. With these films the arty lighting and photography employed in major features is unnecessary.

The resort to latensification saved several valuable shots which director of photography Charles G. Clarke, A.S.C., was forced to make in adverse light recently while on location in Germany for the 20th Century-Fox production, "Two Corridors East." Earlier, Sol Halprin, A.S.C., and Henry Goldfarb who head that studio's camera and laboratory departments respectively, had prepared for just such eventualities and added latensification facilities to the Fox laboratory. Clarke simply marked the underexposed footage for latensification, with indications of the approximate illumination deficit, and the laboratory applied the necessary post-exposure to render a normal negative. The use of light to increase the effective speed of the negative permits very accurate control and yields dependable and uniform results, Halprin pointed out.

Latensification has been in practice at the Fox studio about a year and both cinematographers Norbert Brodine, A.S.C., and Clarke have made many tests and subsequently planned their photography to take advantage of this valuable new process. Edward Snyder, A.S.C., at the same studio has employed latensification advantageously in the production of background plates.

Warner Brothers, although as yet not using the process as extensively as some other studios, nevertheless has installed the most modern latensifying equipment of any studio laboratory. "We are prepared, and use latensification occasionally when we have no other recourse," said Fred Gage, studio lab head.

Metro-Goldwyn-Mayer studios are reportedly interested in the process and while they have not as yet installed equipment for latensifying film in their own labs, are understood to be conducting tests.

Independent laboratories such as Consolidated and Pathe, in Hollywood, were among the first to realize the great benefits arising from the latensifying process and were among the first to equip for rendering this service to independent motion picture producers and to major studios not yet equipped for the process. At the present time, Consolidated Film Industries' laboratory in Hollywood is doing latensification work for RKO, Samuel Goldwyn and Republic studios. "Studios who were cautious about the process in the beginning, now use it regularly," said Sid Solow, head of Consolidated. Pointing out that latensification is a definite attribute in the use of Ansco Color film, Solow said latensification is destined to become part of the regular procedure in all color film processing.

Equipment cost is never a factor in

the decision to adopt use of latensification. As Mr Moyse pointed out in his article: "The equipment for post-fogging can take a variety of forms but can be visualized as a dry-box-like arrangement wherein a negative can be exposed to a weak source of light for a number of minutes as it passes through. . . . The exposing light source should be variable in intensity but under accurate voltage control at any given intensity. Light filtered by an ordinary green safelight can be used on panchromatic materials, as a matter of convenience, but any color which will fog a negative will produce the effect."

BULLETIN BOARD

(Continued from Page 432)

give complete coverage. Footage will be made a part of U-I's forthcoming "Rose Queen" which starts rolling in mid-January.

•

DEWEY WRICLEY, A.S.C., and Schuyler Sanford who have been shooting background footage in Europe to re-furbish Paramount's stock shot library, have supplied that studio with 100,000 feet of stock shots of Italian locales. Both cameramen were sent overseas months ago primarily to work on Hal Wallis' "September." Following completion of that assignment, they roamed Europe and filmed scenic and background shots needed in future productions.

•

UNPRECEDENTED smog and fog conditions in the Los Angeles area latter part of November curtailed shooting activities on three pictures and forced production managers to revise filming schedules to indoor sets. Productions affected were Kramer's "The Men," being photographed by Bob deGrasse, A.S.C., "Annie Get Your Gun" which Charles Rosher, A.S.C., is filming for M-G-M, and "Bright Leaf," Warner Brothers production with Karl Freund, A.S.C. behind the camera. The Gene Autry company at Columbia reportedly salvaged scenes shot in smog, by latensifying the film.

•

LESTER WHITE, A.S.C., started filming on location at San Diego November 28th on Thor Productions' "Dark Challenge," starring Mickey Rooney and Pat O'-Brien.

•

COLUMBIA PICTURES becomes first major studio to enter production of motion pictures for television on substantial scale. Studio will start a series of films especially for TV in New York December 1st. Already signed to star in initial group is comedian Billy Gilbert.

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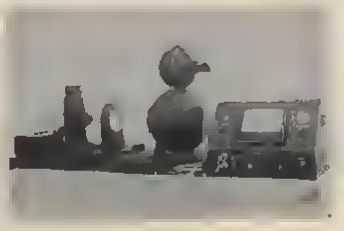
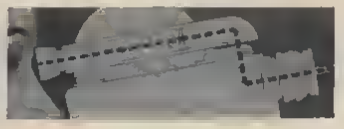


"T" Stop Calibrator

Photo Research Corpn, Burbank, Calif., announces its new transmission "T" Stop calibrator, a scientific optical instrument designed to accurately measure the true transmission potential and exact focal length of lenses It permits exacting recalibration of lenses to "T" stops by studio camera departments, technical laboratories, photographic service stores, etc Complete details and prices may be had by writing manufacturer at 127 W Alameda St., Burbank

Custom Accessories

Pictorial Enterprises, 742 Market St, San Francisco, Calif, announce an extensive line of custom-built accessories for Bolex and Cine Special cameras, including varifocal viewfinders, matte-box and filter holder assembly, five-unit extension tube set and a precision alignment gauge for the Bolex 16° High craftsmanship according to Lee W. Smith, head of company, assures precision results, ease of operation and accurate fit to the cameras for which each piece is designed Of special note is the varifocal viewfinder with 5-element optical system giving sharp edge-to edge images even at low light levels



Eye-Level Focuz

Now standard equipment on Bolex model H cameras is the Bolex Eye-Level focusing device, permitting focusing through the lens before making the shot, insuring sharp focus at all times Ground glass focusing has always been a feature of Bolex cameras. New Eye-Level focusing enlarges image 10 diameters Owners of older model H Bolex cameras may have the Eye-Level focuser added to their cameras for $37 50 (plus tax) through their local dealers.

Color Film Processor

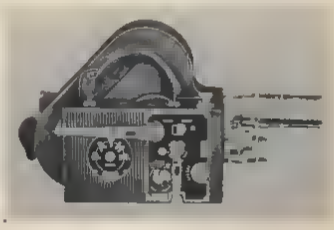
Houston Corp, West Los Angeles 64, Calif., announces a new automatic color film developing machine, designed for processing Ansco Color film Four models are available for 35mm. and 16mm. film.

Motor Drive For Bolex, Special

A precision-made, instantly attachable battery-operated electric motor for Bolex and Cine Special cameras is offered by the Miles Engineering Co., Box 5872, Kansas City, Mo Click switch affords use of three speeds 8, 16, or 24 f.p.s Motor weighs 8 oz., is ball-bearing, governor controlled Net weight of motor, case and battery is less than 5 lbs Complete unit sells for $57 50 A special sound model, operating at 24 f.p.s., sells for $67.80.

Magnetic Recorder Data

Kinevox, Inc., 4000 Riverside Dr, Burbank, Calif, has prepared an informative new brochure and data sheet on Kinevox synchronous magnetic film recorders Also announced as companion for the Kinevox recorder is the new Kinevox Film Phonograph or dubber and a four-position mixer, which provides all the equipment necessary for production of magnetic film sound tracks for 35mm or 16mm motion picture production Make request on your letterhead



Pathe Camera Comes To U.S.

Pathe Cine, 521 5th Ave, New York, headed by Robert E Brockway, is now distributing the complete line of Pathe 16mm motion picture cameras and projectors manufactured by Pathe in France

The "Super 16" Pathé camera, priced at $395.00 less lens permits viewing picture through the lens while shooting—a new innovation in ciné cameras Other features include variable shutter, speed range from 8 to 80 f.p.s., runs 30 feet of film at one winding, automatic footage and frame counters, tri-lens turret, built-in hand crank, optical viewfinder and single-frame device.

New Magnetic Film Recorder

The Hallen Corporation, 3503 W. Olive, Burbank, Calif., announces the Hallen Junior synchronous magnetic film recorder—a single unit machine designed especially for economy of operation and light weight Companion equipment to the Hallen B-22 recorder, the "Junior" may be had in portable case or for rack and panel mounting Features include monitor speaker in the removable lid, special salient-pole motor, convenient, easy-to-see sloping amplifier and mixing panel, simultaneously functioning erase, record and playback heads, handles up to 1000 feet of magnetic film

Fast Cine Lens

Ciné Balowstar is name of new and unusual 16mm camera lens announced this month by Jen Products Sales Co, 419 W 42d St, N Y Said to be faster than any cine telephoto lens yet designed, the Balowstar is computed to give the highest definition and edge-to-edge sharpness in natural color, due to a completely new mathematical formula Aperture range is from f/1 3 to f/16 Calibrated in both f/ and T stops. Focal length is 1½". Price is $199 00, tax incl.

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A quick disconnect electrical coupling for all weather and sub-marine applications is a new development of Rolyn, Inc, 728 W Wilson St, Glendale, Calif Coupling is designed to meet the rigid requirements of industries requiring an electrical connector that is quick acting heavy duty, impervious to moisture and capable of withstanding pressure without leakage It is ideal for use on electrical cables for all types of motion picture production, but especially for exterior location work where considerable moisture prevails A quarter turn is all that's required to make or break the coupling Descriptive literature is available

New S.O.S. Catalog

J A Tanney, president of S.O.S Cinema Supply Corp, 602 W 52nd St, N Y, announces a new catalog listing its film production and television equipment. Titled "Sturelab 8A," this new catalog is divided into sections and includes a cross-reference index leading to instant locating of items Catalog lists about 1600 items and contains over 200 photos Also, many items are priced at savings from 25 to 40 percent. A copy will be mailed free

Equipment Catalog

Producers Service Company, designer and manufacturer of the famous "Acme" motion picture production equipment has just issued a comprehensive 16-page catalog which illustrates all the equipment, accessories and parts now being offered by this company Complete description is given together with photo reproductions of such items as the Acme Process Camera, Acme Animation Boards, Process Projector heads, Acme Matte Shot Projector, Acme Printers, etc Also included is sale and rental price lists of Acme equipment.

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ASSIGNMENTS

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Keel, Louis Calhern, J Carrol Naish, Edward Arnold, Keenan Wynn and Benay Venuta George Sidney, director.

• HAROLD ROSSEN, "Asphalt Jungle," with Sterling Hayden, Jean Hagen and James Mitchell John Huston, director.

• JOHN ALTON, "Mystery Street," with Ricardo Montalban, Sally Forrest, Bruce Bennett and Marshall Thompson John Sturges, director

• HAROLD LIPSTEIN, "The Skipper Surprises His Wife," with Robert Walker, Joan Leslie, Edward Arnold, Spring Byington and Leon Ames Elliott Nugeot, director.

• ROBERT PLANCK, "Summer Stock," (Technicolor) with Judy Garland, Gene Kelly, Gloria DeHaven, Phil Silvera and Eddie Bracken Charles Walters, director.

Monogram

• GILBERT WARRENTON, "Young Daniel Boon," (In Color) with David Bruce, Kristine Miller Reginald LeBorg, director

• WILLIAM SICKNER, "Joe Palooka In Honeymoon For Five," with Joe Kirkwood, Leon Errol and Pamela Blake Jean Yarbrough, director

• HARRY C. NEUMANN, "Fence Riders," with Whip Wilson, Reno Browne and Andy Clyde Wallace Fox, director

Paramount

• WILLIAM MELLOR, "A Place In The Sun," with Elizabeth Taylor, Montgomery Clift and Shelly Winters George Stevens, director.

• GEORGE BARNES, "Mr. Music," with Bing Crosby, Charles Coburn, Ruth Hussey and Nancy Dison Richard Hadyn, director

• ROY HUNT, "Outrage," (Pine-Thomas) with Macdonald Carey, Gail Russell, Ed Rios. Joseph Losey, director.

• CHARLES LANG, "September," (Hal Wallis Prod.) with Joan Fontaine, Joseph Cotten, Francoise Rosay and Robt Arthur. William Dieterle, director

• VICTOR MILNER, "The Furies," (Hal Wallis Prod.) with Barbara Stanwyck, Wendell Corey, Walter Huston Anthony Mann, director.

R.K.O.

• FREDDIE YOUNG, "Treasure Island" (Walt Disney Prodn.—Shooting in England) with Bobby Driscoll, Robert Newton, Basil Sidney and Denis D'Dea Byron Haskin, director.

• HARRY WILD, "Carriage Entrance," with Robert Mitchum, Ava Gardner and Melvyn Douglas Robert Stevenson, director

• LEO TOVER, "Blind Spot," (Skirball-Manning Prod.) with Claudette Colbert, Robert Ryan and Jane Cowl Mel Ferrer, director.

• HARRY STRADLING, "Edge Of Doom," (Goldwyn Prod.) with Dana Andrews, Farley Granger, Joan Evans Mark Robson, director.

20th Century-Fox

• CHARLES G. CLARKE, "Two Corridors East" (Shooting in Berlin, Germany) with Montgomery Clift, Paul Douglas, Cornella Burch and Burni Loebel. George Seaton, director.

• ARTHUR MILLER, "The Gun Fighter," with Gregory Peck, Helen Wescott, Jean Parker and Skip Homeier Henry King, director.

• JOSEPH LASHELLE, "The Big Fall," with John Garfield, Michelne Prelle, Luther Adler and Driey Lindgren Jean Negulesco, director.

• LEON SHAMROY, "Cheaper By The Dozen," (Technicolor) with Jeanne Crain, Clifton Webb, Myrna Loy, Betty Lynn. Sara Allgood Walter Lang, director.

• MILTON KRASNER, "No Way Out," with Richard Widmark, Linda Darnell, Stephen McNally and Fred O'Neal Joseph Mankiewicz, director.

United Artists

• HENRY FREULICH, "The Iriquois Trail," (Bernard Small Prod.) with George Montgomery, Brenda Marshall, Glen Langan, Sheldon Leonard and Paul Cavanaugh Phil Karlson, director

• ROBERT DE GRASSE, "The Men," (Stanley Kramer Prod.) with Marlon Brando, Teresa Wright, Richard Erdman and Everett Sloan Fred Zinnemann, director

Universal-International

• WILLIAM DANIELS, "Deported" (Shooting in Italy) with Marta Toren, Jeff Chandler Robert Siodmak, director

• MAURY GERTZMAN, "Double Crossbones," (In Color) with Helena Carter, Donald O'Connor, John Emery. Charles Barton, director.

• IRVING GLASSBERG, "Shoplifter," with Scott Brady, Mona Freeman, and Andrea King Charles Lamont, director

• MAURY GERTZMAN, "Death Do A Side Street," with James Mason, Marta Toren and Dan Duryea Hugo Fregonese, director

Warner Brothers

• TAD MCCORD, "The Victim," with Joan Crawford, David Brian and Steve Cochrane Vincent Sherman, director.

• ERNEST HALLER, "The Hawk And The Arrow," with Burt Lancaster, Virginia Mayo and Frank Allenby Jacques Tourneur, director.

• SIDNEY HICKOX, "The Rock Bottom," with Eleanor Parker, Patricia Neal, Ruth Roman, and Lief Ericson Robert Wise, director

• ROBERT BURKS, "The Glass Menagerie," with Gertrude Lawrence, Jane Wyman, Kirk Douglas, Arthur Kennedy. Irving Rapper, director

• CARL GUTHRIE, "Storm Center," with Ginger Rogers, Ronald Reagan and Doris Day Stuart Heisler, director

• WILFRID KLINE, "Colt 45," (Technicolor) with Randolph Scott and Zachary Scott Edward Marin, director

• KARL FREUND, "Bright Leaf," with Gary Cooper, Jack Carson, Laureo Bacall, Patricia Neal, Donald Crisp, Elizabeth Patterson and Jeff Corey. Michael Curtiz, director

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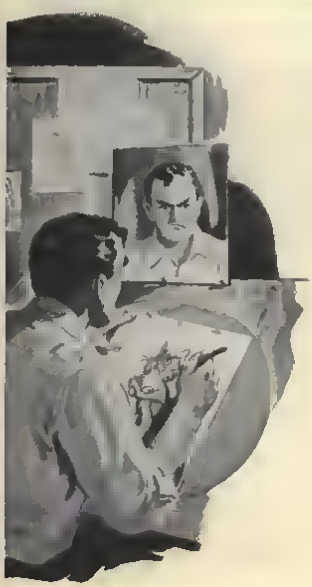

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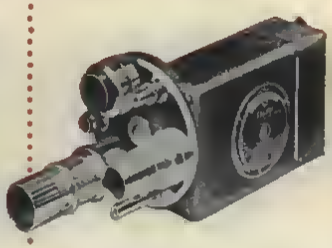

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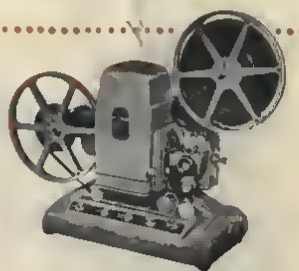

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